

REMARKS

This application has been reviewed in light of the Office Action dated September 22, 2006. Claims 1-24 are presented for examination. Claims 1, 3, 5, 7, 10, 14, 15, 18, 20, 23, and 24 have been amended to define still more clearly the invention, and the remaining claims have been amended to remove reference designators. Claims 1 and 23 are in independent form. Favorable reconsideration is requested.

Applicants note with appreciation the indication that claims 12 and 13 would be allowable if rewritten so as not to depend from a rejected claim, and with no change in scope. These claims have not been so rewritten because, for the reasons given below, claim 1, their base claim, is believed to be allowable.

Claims 3, 5, 7, 10, 14, 15, and 18-24 were rejected under 36 U.S.C. § 112, second paragraph, as being indefinite. These claims have been carefully reviewed and amended as deemed necessary to ensure that they conform fully to the requirements of Section 112, second paragraph, with special attention to the points raised on page 2 of the Office Action. It is believed that the rejection under Section 112, second paragraph, has been obviated, and its withdrawal is therefore respectfully requested.

Claims 1-7 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,610,093 (Pisharodi). Claims 1-11, 16, and 17 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Pisharodi.

As shown above, Applicants have amended independent claim 1 in terms that more clearly define the invention. Applicants submit that amended independent claim 1, together with the claims dependent thereon, is patentably distinct from the cited prior art for at least the following reasons.

Claim 1 is directed to an intervertebral implant, specifically an artificial intervertebral disk, comprising a central axis and (A) an upper plate-shaped section, suitable for laying onto the base plate of a vertebral body lying above, wherein the upper section is provided with one ventral side area, one dorsal side area, two lateral side areas, an upper

apposition surface and a lower surface; (B) and a lower plate-shaped section suitable for laying onto the cover plate of a vertebral body lying below, wherein the upper section is provided with one ventral side area, one dorsal side area two lateral side areas, an upper apposition surface and a lower surface. Between the upper and lower section, a central, plate-shaped section is arranged, where the central section is provided with a ventral side surface, a dorsal side surface, two lateral side surfaces, a lower surface facing the lower section and an upper surface facing the upper section. Further, between the upper section and the central section, a first circular-cylindrical rod with a longitudinal axis is arranged in an antero-posterior orientation and intersects the central axis, and between the lower section and the central section, a second circular-cylindrical rod with a longitudinal axis is arranged in a medio-lateral orientation and parallel with the central axis. That is, the first circular cylindrical rod and the second circular cylindrical rod are perpendicular to each other resulting in a joint with crossed swivel axes.

Pisharodi, as understood by Applicants, relates to an intervertebral disk having upper and lower interlocking brackets which attach to adjacent vertebrae allowing for some forward flexion and rearward extension of the spine. As depicted in the figures, the Pisharodi implant includes ribs 38 or 40 set in grooves 39 or 41. The ribs are parallel along their longitudinal axis and allow for movement in the groove. In contrast, the longitudinal axis of the cylindrical rods of claim 1 are perpendicular to each other, allowing for crossed-swivel axes. This feature allows for swivel movements in more than one direction, where the movements are independent of each other. The Examiner, however, has identified element 64A of Figure 4A of Pisharodi as disclosing the cylindrical rods. Applicants in amending claim 1 have recited the arrangement of the first and second cylinder rods as being arranged antero-posterior and medio-lateral, respectively. The rods (64A) of Pisharodi are not arranged in a similar fashion. Further, the arrangement of the Pisharodi rods do not allow for cross-swivel movements of the plates.

Furthermore, the ribs and the implant surface(s) of the Pisharodi implant are formed as one unit, unlike the implant of claim 1 where the cylindrical rods are separate from the three plates, upper, lower and central. By forming the rods separate from the plates of the implant, the linear contact surface is reduced and thus the frictional surface of the movements is reduced to a minimum.

For at least the above reasons, Applicants submit that claim 1 is not anticipated by Pisharodi, and respectfully request withdrawal of the rejection under 35 U.S.C. § 102(e).

Claim 1 was also rejected under 35 U.S.C. § 103(a) as being unpatentable over Pisharodi. For at least the same reasons discussed above, Applicants submit that claim 1 is clearly patentable over Pisharodi.

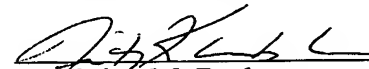
Claim 23, the other independent claim, was rejected only under 35 U.S.C. § 112, second paragraph, as discussed above. Accordingly, based on the amendments made to claim 23 to overcome the Section 112 rejection, Applicants submit that claim 23 is now in condition for allowance.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration or reconsideration, as the case may be, of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application. Should the Examiner have any questions or comments concerning this submission, he is invited to call the undersigned at the phone number identified below.

Respectfully submitted,

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